

WHAT IS CLAIMED IS:

1. A suspension comprising:
  - a longitudinal axis;
  - a proximal mounting section;
  - a rigid load beam section;
  - a flexible section located between the proximal mounting section and the rigid load beam section, the flexible section having a preload bend;
  - a peak strain region located between the preload bend and the rigid load beam section; and
  - a damper covering at least a portion of the peak strain region.
2. The suspension of claim 1, wherein the peak strain region further includes a strain focusing aperture.
3. The suspension of claim 2, wherein the strain focusing aperture comprises an elongated slot, which extends transversely to the longitudinal axis and has first and second ends that are respectively spaced from first and second opposing side edges of the suspension.
4. The suspension of claim 3, wherein the strain focusing aperture concentrates strain energy in the peak strain region between the first end of the strain focusing aperture and the first side edge and between the second end of the strain focusing aperture and the second side edge.

5. The suspension of claim 4, wherein the damper covers a portion of the surface area of the suspension that is located between the first end of the strain focusing aperture and the first side edge and between the second end of the strain focusing aperture and the second side edge.
6. The suspension of claim 2, wherein the damper covers the strain focusing aperture.
7. The suspension of claim 1, wherein the flexible section further includes a pair of spaced, elongated flexible struts extending from the proximal mounting section toward the peak strain region, and wherein the preload bend is formed across the flexible struts.
8. The suspension of claim 7, wherein the flexible section further includes a strain focusing aperture located between a distal end of the first and second flexible struts and the rigid load beam section.
9. The suspension of claim 8, wherein the strain focusing aperture comprises an elongated slot extending transversely to the longitudinal axis and having first and second ends, which are spaced from the first and second side edges, respectively.
10. The suspension of claim 9, wherein the damper covers a portion of the surface area of the suspension that is located between the first end of the strain focusing aperture and the first side edge and between the second end of the strain focusing aperture and the second side edge.

11. A method of damping a suspension having a flexible section, a rigid load beam section and a preload bend in the flexible section, the method comprising:  
concentrating high strain energy into a peak strain region located between the  
preload bend and the rigid load beam section; and  
damping at least a portion of the peak strain region with a damper.
12. The method of claim 11, wherein concentrating high strain energy further comprises forming a strain focusing aperture within the peak strain region.
13. The method of claim 12, wherein forming a strain focusing aperture comprises forming an elongated slot in the peak strain region, which extends transversely to a longitudinal axis of the suspension, for concentrating strain energy between a first end of the slot and a respective first side edge of the suspension and between a second end of the slot and a respective second side edge of the suspension.
14. The method of claim 13, wherein damping at least a portion of the peak strain region comprises damping the strain energy between the first end of the slot and the first side edge of the suspension and between the second end of the slot and the second side edge of the suspension.
15. A suspension comprising:  
a longitudinal axis;  
a proximal mounting section;  
a rigid load beam section;  
a flexible section located between the proximal mounting section and the rigid load beam section and comprising a preload bend;

means for concentrating peak strain energy in a peak strain region of the flexible section, between the preload bend and the rigid load beam section; and  
a damper covering a portion of the peak strain region.

16. The suspension of claim 15 wherein the means for concentrating comprises an elongated planar region extending from the preload bend toward the rigid load beam section and defining the peak strain region.

17. The suspension of claim 16, wherein the means for concentrating further comprises a strain focusing aperture in the peak strain region.

18. The suspension of claim 17, wherein the strain focusing aperture comprises an elongated slot, which extends transversely to the longitudinal axis and has first and second ends that are spaced from the first and second side edges, respectively.

19. The suspension of claim 18, wherein the strain focusing aperture concentrates the peak strain energy between the first end of the strain focusing aperture and the first side edge and between the second end of the strain focusing aperture and the second side edge.

20. The suspension of claim 19, wherein the damper covers a portion of the surface area of the suspension that is located between the first end of the strain focusing aperture and the first side edge and between the second end of the strain focusing aperture and the second side edge.

21. The suspension of claim 17, wherein the damper covers the strain focusing aperture.
22. The suspension of claim 15, wherein the flexible section further includes a pair of spaced, elongated flexible struts extending from the proximal mounting section toward the peak strain region, and wherein the preload bend is formed across the flexible struts.
23. A suspension comprising:
  - a longitudinal axis;
  - a proximal mounting section;
  - a rigid load beam section;
  - a flexible section located between the proximal mounting section and the rigid load beam section, the flexible section having a preload bend;
  - a peak strain region located between the preload bend and the rigid load beam section;
  - a strain focusing aperture located within the peak strain region; and
  - a damper covering at least a portion of the peak strain region.